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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jae H. Shim

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EXAMINER

CHANG, JON CARLTON

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,071

Applicant(s)

SHIM ET AL.

Examiner

Jon Chang

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-7,9-13,15-19 and 21-28 is/are allowed.
- 6) ☒ Claim(s) 2,8,14 and 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Claim Objections

1. Claims 1, 4-7, 10-13, 16-19, 22-24 are objected to because of the following informalities:

In claim 1, at line line 6, "part of" should be inserted between "is" and "a", to maintain consistency with line 5. See also claims 7, 13 and 19

In claim 17, at line 9, "no" should be changed to "the".

Claim 4 recites, "...further comprising choosing said single stroke time interval length..." While there is nothing technically wrong with this language, it appears that Applicant may have intended this to read, "...wherein said single stroke time interval..." The difference between the two phrases is that the former indicates an additional step performed in the method, whereas the latter indicates a characteristic of the method. A similar problem exists for claims 5 and 6. See also claims 10-12, 16-18 and 22-24.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 2, 8, 14 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, at line 3, "said character" is vague since there are "one or more characters" mentioned in claim 1. See also claims 8, 14 and 20

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In claim 2, at line 8, "said selected character" lacks antecedent basis. See also claims 8, 14 and 20.

Allowable Subject Matter

3. Claims 1, 3-7, 9-13, 15-19 and 21-28 are allowed.
4. Claims 2, 8, 14 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Claim 1 is represented of one group of claims. Among other things, the claim requires a number of conditional steps based on an analysis of a sequence of characters entered by a user to determine whether the character sequence is part of a continuous cursive word, including determining whether a character is a potential multi-stroke character when the character sequence is a continuous cursive word, displaying ink in a certain manner when no character is a potential multi-stroke character, displaying ink in another manner when the at least one character is a potential multi-stroke character, and receiving at least one stroke and continuing the display when the stylus is reapplied in a correct position. The limitations, as claimed in combination, are neither disclosed nor suggested by the prior art of record. Claim 7 is similar with additional limitations. Claim 13 is analogous to claim 1. Claim 19 is analogous to claim 7. Claims 2-6 depend from claim 1. Claims 8-12 depend from claim 7. claims 14-18 depend from claim 13. Claims 20-24 depend from claim 19.

Claim 25 is representative of a second group of claims. It is similar to claim 1, the primary difference being that the conditional steps are based on whether the character sequence is a single character. Claim 26 is similar to claim 25 with additional limitations. Claim 27 is analogous to claim 5. Claim 28 is analogous to claim 26.

U.S. Patent 6,493,464 to Hawkins et al. is the closest prior art. The patent teaches away from the instant invention because while it acknowledges the use of fixed time delay periods after writing multi-stroke characters in order to perform recognition, the patent indicates that these approaches are deficient due to the recognition time delays introduced (column 3, lines 9-23).

References Cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,313,527 to Guberman et al. discloses a method and apparatus for recognizing cursive writing from sequential input information.

U.S. Patent 5,335,289 to Abdelazim discloses a system and method for recognizing characters in cursive script in which the script is scanned to detect word boundaries and the words are then segmented into characters.

U.S. Patent 5,613,019 to Altman et al. discloses a system and method for recognizing electronic representations of handwriting, printing and drawings.

U.S. Patent 6,340,967 to Maxted discloses a pen based edit correction interface method and apparatus. The invention analyzes first strokes, which may be of a cursively written word, a uni-stroke, or a multi-stroke symbol. The patent teaches that "time-out" is known in the art for multi-stroke symbols.

U.S. Patent 6,493,464 to Hawkins et al. discloses a multiple pen stroke character set and handwriting recognition system with immediate response. The patent teaches, among other things, post-character modifier strokes, which are recognized after recognition of character or symbol strokes.

The article, "Cursive Character Detection Using Incremental Learning" by Hebert et al. teaches a neural network classifier that enables incremental learning for detection of cursive characters.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
August 9, 2004